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LEE, HONG, DEGERMAN, KANG & SCHMADEKA, P.C. 801 SOUTH FIQUEROA STREET 14TH FLOOR LOS ANGELES, CA 90017			MAIS, MARK A	
			ART UNIT	PAPER NUMBER
			2664	

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/836,662	Applicant(s) KIM, HYUN JOON	
	Examiner Mark A Mais	Art Unit 2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Priority

1. Acknowledgement is made of the claim for foreign priority under 35 U.S.C. 119(a)-(d). However, the proper papers have not been submitted under 35 U.S.C. 119(a)-(d), in order to be placed of record in the file. Correction (proper papers) is required in order to perfect the claim to priority.

Specification

2. The disclosure is objected to because of the following informalities: The specification fails to reference copending and/or issued applications without the reference to the foreign application/serial numbers in the specification.

3. An application in which the benefits of an earlier application are desired must contain a specific reference to the prior application in the first sentence of the specification or in an application data sheet by identifying the prior application by application number (37 CFR 1.78(a)(2) and (a)(5)). If the prior application is a non-provisional application, the specific reference must also include the relationship (i.e., continuation, divisional, or continuation-in-part) between the applications except when the reference is to a prior application of a CPA assigned the same application number. Appropriate correction is required.

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4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-21 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kung et al. (USP 6,728,239).

7. With regard to claim 1, Kung et al. discloses a network connection apparatus [**Fig. 4, CPE 102, of the integrated broadband IP based communication system, col. 21, lines 55-56**] comprising:

an internet phone main unit [**Fig. 3, broadband residential gateway 300**] as an ordinary telephone or an internet phone in accordance with an operation of a user [**Fig. 4, broadband residential gateway 300 has both PSTN and internet phone capability, col. 21, lines 12-21**];

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a function extending unit for interfacing function packs performing an independent function respectively with a network CPU unit [Fig. 3, **peripheral ports module 342 for providing connectivity to external peripherals**, col. 18, lines 15-16]; and

a network CPU unit [Fig. 3, **processing controller 306**] for controlling an audio signal transmitted/received through a PSTN [col. 16, lines 28-37] and controlling a signal received from a network by controlling the internet phone main unit and function extending unit [col. 16, lines 37-41].

8. With regard to claim 2, Kung et al. discloses an internet phone main unit comprises:

a LCD module for displaying a telephone number and various control information [Fig. 3, **display 338**, col. 19, lines 47-52];

a keypad module for inputting a telephone number and various information [Fig. 3, **interactive display 338**, col. 19, lines 55-61];

a codec module for modulating an audio signal inputted from outside [**voice CODEC included in intercom module (IM) 344** of Fig. 3, col. 18, lines 21-22, and 30-39; *see also* col. 23, lines 59-64];

a speaker module for inputting and outputting audio [Fig. 3, **IM module 344**, col. 18, line 22 (speakers)] ; and

a transceiver module for communicating with the other person [Fig. 3, **transceiver 302 for communication with other networks, and therefore, with other people**, col. 17, lines 18-20].

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9. With regard to claim 3, Kung et al. discloses a network CPU unit comprises

a network CPU module [Fig. 3, processing controller 306] for controlling/executing a signal inputted/outputted from/to the PSTN or network [col. 18, processing controller 306 can handle all functions, and, therefore, can handle all POTS and network signaling, col. 18, lines 61-63];

a PSTN module for detecting a ring signal inputted from the PSTN [Fig. 4, peripheral port processor 308 performs call functions, interpreted as inherently at least a ring signal, col. 19, lines 4-6, when utilizing POTS, col. 16, lines 30-34];

converting an analog audio signal inputted from outside into a digital signal (PCM), and transmitting it to the network CPU module [voice CODEC included in intercom module (IM) 344 of Fig. 3, col. 18, lines 21-22, and 30-39; *see also* col. 23, lines 59-64, which discloses PCM conversion];

a memory module for storing a file and an application code for executing a signal inputted to the network CPU unit [memory integrated into the processing controller 306, memory 322, program store 330 or peripheral port processors, col. 19, lines 23-42];

a PCI module for arbitrating various devices installed to slots of the function extending unit and data [there must inherently be PCI controller to arbitrate more than one PCI compatible device on a PCI bus, col. 18, line 17; *see also* bus 360 includes any suitable interconnect bus, col. 17, lines 38-42]; and

a USB module for making extension/connection with a peripheral device easily [there must inherently be a USB controller to arbitrate more than one USB device, col. 18, line 17].

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10. With regard to claim 4, Kung et al. discloses that the memory module comprises:

a ROM unit for storing data for initializing a state of the network CPU module [**col. 19, lines 23-28**];

a RAM unit for storing an application program for executing data transmitted to the network CPU module [**col. 19, lines 23-28**]; and

a unit for improving execution speed of the network CPU module and communication execution speed [**peripheral processors 310 (P2 Data), 312 (P3 Video), 314 (P4 Aux.), 316 (P5 IP), and 318 (OA &M) under the control of processing controller 306 (col. 18, line 65 to col. 19, line 1) can take up tasks from processing controller 306 to free up processing power (e.g., 314, (P4 Aux.) performs special processing functions such as numeric processing (col. 19, lines 13-15).**]

11. With regard to claim 5, Kung et al. discloses that the network CPU module converts a signal inputted from the PSTN into a packet format [**voice CODEC included in intercom module (IM) 344 of Fig. 3, col. 18, lines 21-22, and 30-39; see also col. 23, lines 59-67, which discloses PCM conversion, and conversion to IP packets potentially encapsulated in DOCSIS**], adapts a protocol corresponding to a pertinent IP phone [**See Id.**], performs routing in data transmission [**internally multiplexes/de-multiplexes multiple incoming/outgoing data, col. 16, lines 38-41**], controls/executes a signal related to each PCI pack [**e.g., peripheral processor 310 (P2 Data) may include management functions such as coordination/distribution of data within various devices via interconnect bus 360**].

12. With regard to claim 6, Kung et al. discloses that the PCI module **[there must inherently be PCI controller to arbitrate more than one PCI compatible device on a PCI bus, col. 18, line 17; see also bus 360 includes any suitable interconnect bus, col. 17, lines 38-42]** can directly input/output a packet **[packets]** to each function pack **[peripherals connected to peripheral port module 342 are disk drives, disk storage, VCR, DVD, Audio, video devices, etc., col. 16, line 66 to col. 17, line 4]** of the function extending unit **[via interconnect bus 360]**, accordingly it can be a master and a target at the same time **[inherent, e.g., it can send camcorder data to all digital video recorders at the same time]**.

13. With regard to claim 7, Kung et al. discloses that the network CPU unit contacts to the network by using a real-time operating system **[DOCSIS and any other future protocol that strengthens TCP/IP, col. 23, line 64 to col. 24, line 8]**.

14. With regard to claim 8, Kung et al. discloses that the function extending unit **[Fig. 3, peripheral ports module 342 for providing connectivity to external peripherals, col. 18, lines 15-16]** is constructed with a plurality of slots for inserting various function packs, and the number of slots can increase variably **[it is inherent that the number of slots (i.e., slot space or interfaces) can increase or decrease according to space, structure, time- and cost-constraints]**.

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15. With regard to claims 9, 11 and 12, Kung et al. discloses that the function extending unit **[Fig. 3, peripheral ports module 342 for providing connectivity to (different-functioning/protocol) external peripherals, col. 18, lines 15-16]** comprises:

a network interface pack **[transceiver 302, col. 17, lines 59-61]** for transmitting data inputted from an internet leased-line to the other function pack or the network CPU **[col. 18, processing controller 306 can handle all functions, and, therefore, can handle all POTS and network signaling, col. 18, lines 61-63]**;

a wireless LAN pack **[Fig. 3, wireless interface module 345]** for constructing a network with each terminal wirelessly **[wireless TVs, phones, LANs, col. 17, lines 6-9]** ;

an IEEE 1394 pack for connecting directly to a peripheral device having wide data transmission bandwidth **[IEEE 1394 or firewire (col. 18, line 17) inherently connect to devices with wide data transmission bandwidths such as, for example, disk drives, disk storage, VCR, DVD, Audio, video devices, etc., col. 16, line 66 to col. 17, line 4]**;

a graphic-sound pack for displaying a graphic and an audio inputted from a communication cable or a network **[Fig. 3, TV Port Module 336 for displaying cable television, col. 16, lines 28-30 and 59-61]**;

an extension graphic-sound pack for decreasing load of a CPU for outputting a graphic/audio in execution of a higher graphic and sound program **[Fig. 3, peripheral processor 312 (P3 Video) includes video processing functions, col. 19, lines 9-13]**; and

an additional CPU pack for performing a large scale program which is difficult to perform with the network CPU module **[Fig. 3, peripheral processor 314, (P4 Aux.) performs special processing functions such as numeric processing (col. 19, lines 13-15)]**.

16. With regard to claim 10, Kung et al. discloses that the additional CPU pack can operate as an independent PC [each processor may be an entirely separate processing unit with it's own RAM, ROM and flash memory, col. 19, lines 23-26; multiples PC connected to gateway 300; and gateway 300 may also be divided into more than one physical package, col. 22, lines 2-7], and comprises a power button for saving power and a reset button in preparation for wrong operation of a CPU [it is inherent that a PC has both power and reset buttons].

17. With regard to claim 13, Kung et al. discloses that the network connection apparatus can be miniaturized by combining common parts used in each function pack of the function extending unit into one [It is inherent that miniaturization or, rather, compactness of components can be accomplished by combining common parts, such as, for example, memory (col. 19, lines 25-31). Moreover, Applicants have not disclosed that miniaturizing the apparatus solves any stated problem or is for any particular purpose. It appears that the performance of the apparatus would result equally well regardless of the modification of size. Recall that modifications are considered a mere design choice consideration, which fails to patentably distinguish over the prior art. In addition, changing the order of searching the neighboring base stations is interpreted as an optimum value for a known process. A discovery of an optimum value for a known process is obvious engineering. See In re Aller, 105 USPQ 233 (CCPA 1955).]

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18. With regard to claims 14 and 15, Kung et al. discloses a network connection method comprising:

setting up a call when an audio signal is transmitted from outside through a PSTN/IP network **[call from PSTN phone coming through CPE 102];**

sampling the transmitted analog audio signal with a PCM digital signal in the PSTN **[digitized signal using PCM and then packetized into IP, col. 23, lines 59-64];**

judging whether the call is connected by wire or wireless in accordance with an IP or a device address of the sampled PCM digital signal **[IP address, see *Id.*; and inherently, a Mobile IP (MIP) address which will contain the home agent and visiting agent addresses encapsulated in the MIP packet, and therefore, the call can be determined to be wire or wireless];** and

transmitting the sampled PCM digital signal to the internet phone main unit when it is judged as wire **[IP calls go to the internet telephone because gateway 300 supports internet telephony, col. 19, lines 20-21]** or transmitting it to the PCI module when it is judged as wireless **[it necessarily goes to wireless interface module 345 via interconnect bus 360, as explained above, to a wireless telephone or wireless LAN, col. 17, lines 6-9].**

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19. With regard to claim 16, Kung et al. discloses that it is possible to communicate with each internet phone independently by routing of the network CPU unit when there is several internet phones and an independent IP address is allocated to the each internet phone in the transmitting step for transmitting the IP packet to the internet phone corresponding to the certain IP address **[this is inherent since gateway 300 discloses supporting multiple IP voice packets and multiple internet (digital) telephones wherein multiplexes/de-multiplexes (routing using IP Processing module 316 (Fig. 3, P5 IP), col. 17, line 34) these streams and delivering them to the correct internet telephones; see also 24-41].**

20. With regard to claim 17, Kung et al. discloses that the setting-up process for setting up the call further comprises inputting the audio signal transmitted through the IP network through a network interface pack [transceiver 302, col. 17, lines 59-61] as a packet format **[DOCSIS frames, which have encapsulated IP packets, col. 23, line 64 to col. 24, line 6].**

21. With regard to claim 18, Kung et al. discloses a method for originating a call by using an internet phone comprising:

pressing a certain keypad of a PSTN set as a default in a network CPU module by a user or selecting an internet phone in a menu on a LCD screen by a user **[Fig. 3, interactive display 338, col. 19, lines 55-61];**

inputting an IP address of the other party **[DOCSIS and IP tunneling using an intercom group, or extension transfers/internal caller ID for 'simulated' work environment (interpreted as pulled from a LCD menu), col. 18, lines 40-60]; and**

originating a call by setting up a VOIP-related protocol by the inputted IP address [using MGCP, SIP, or H.GCP via transceiver 302, col. 17, lines 54-61 further using IP Processing module 316 (Fig. 3, P5 IP), col. 17, line 34].

22. With regard to claim 19, Kung et al. discloses accessing the internet by a network CPU unit through a network interface pack [transceiver 302, col. 17, lines 59-61] when a user requests the internet contact [cable TV using the cable internet connection, *see Id.*]; and displaying data received to the network interface pack on a TV through a graphic-sound pack by using an execution program etc. of the network CPU unit or listening data with an audio [Fig. 3, TV Port Module 336 for displaying cable television, col. 16, lines 28-30 and 59-61; *see also* using a set top box, col. 24, line 56 to col. 25, line 9].

23. With regard to claims 20 and 21, Kung et al. discloses displaying or listening process comprises the step of: outputting all inputted/outputted signals [digital feed, col. 24, line 58] to an additional CPU pack through a PCI bus by recognizing an additional CPU pack of a function extending unit as a destination IP address of an IP header by the network CPU unit [set top box which receives a regular, non-specific IP address, digital feed from gateway 30, col. 24, lines 56-59; or a specific IP address, premium television feed such as, e.g., pay-per-view, col. 25, lines 4-5] when the bandwidth of the transmitted data is wide [e.g., movies on demand, col. 25, lines 4-7].

Conclusion

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

(a) Tang et al. (USP 6,298,370) Computer operating process allocating tasks between first and second processors at run time based upon current processor load. This reference contains all the limitations in applicant's claims 1-21.

(b) Brophy (USP 6,782,412) Systems and methods for providing unified multimedia communication services.

(c) Erikson et al. (USP 6,826,174) Voice-over-IP interface for standard household telephone.

(d) Vaziri et al (USP 6,377,570) Internet switch box, system and method for internet telephony.

(e) Frantz (USP 6,167,043) Method and system for small office and home office telephone private branch exchange allowing simultaneous data and voice communications.

(f) Dale et al. (US Patent Publication 2002/0114325) Phoneline network integrated access device.

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark A Mais whose telephone number is (571) 272-3138. The examiner can normally be reached on 6:00-4:30.

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26. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571) 272-3134. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

27. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

January 25, 2005

A handwritten signature in dark ink, consisting of stylized, overlapping loops and a long horizontal stroke at the end.